

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A system for detecting a rotational motion of a shaft in a machine housing comprising:

a seal disposed on the shaft;

a measuring transmitter connected to the shaft;

at least one measuring sensor provided on the machine housing;

a measuring transducer connected to the measuring sensor;

a regulator that regulates the electric current; and

a transmitting unit for wireless transmission of measured quantities to a separately disposed electronic control device,

wherein the measuring sensor is supplied with electric current by a separate energy accumulator, and

the seal, the measuring sensor, regulator, energy accumulator, and transmitting unit are integrally combined into a unitary block inserted into an opening in the housing a single unit.

2. (Previously Presented) The system as defined in claim 1, wherein the electric current supplied by the energy accumulator is generated by a multipole ring connected to the shaft, and in cooperation with an oppositely disposed stator.

3. (Previously Presented) The system as defined in claim 1, wherein the electric current is regulated by a regulator inserted into an electric circuit.

4. (Cancelled)

5. (Previously Presented) The system as defined in claim 1, wherein the measuring transducer converts a sinusoidal measuring signal from the rotational motion of the shaft into a yes/no signal.

6. (Previously Presented) The system as defined claim 1, wherein the transmitting unit includes a radio antenna that transmits signals received from the measuring sensor on to the electronic control device.

7. (Previously Presented) The system as defined in claim 1, wherein the measuring sensor measures at least one of a pressure, speed, position, a temperature, a leakage, or a torque at the space to be sealed off in its surrounding area.

8. – 17. (Cancelled)